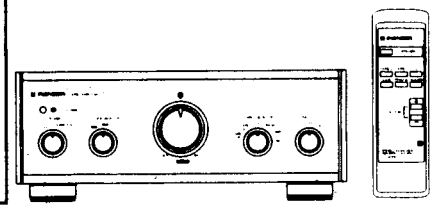
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
ARP2895

STEREO AMPLIFIER

A-07

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	A-07		
MEZ	○	AC 220V - 230V	

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1. EXPLODED VIEWS, PACKING AND PARTS LIST

NOTES:

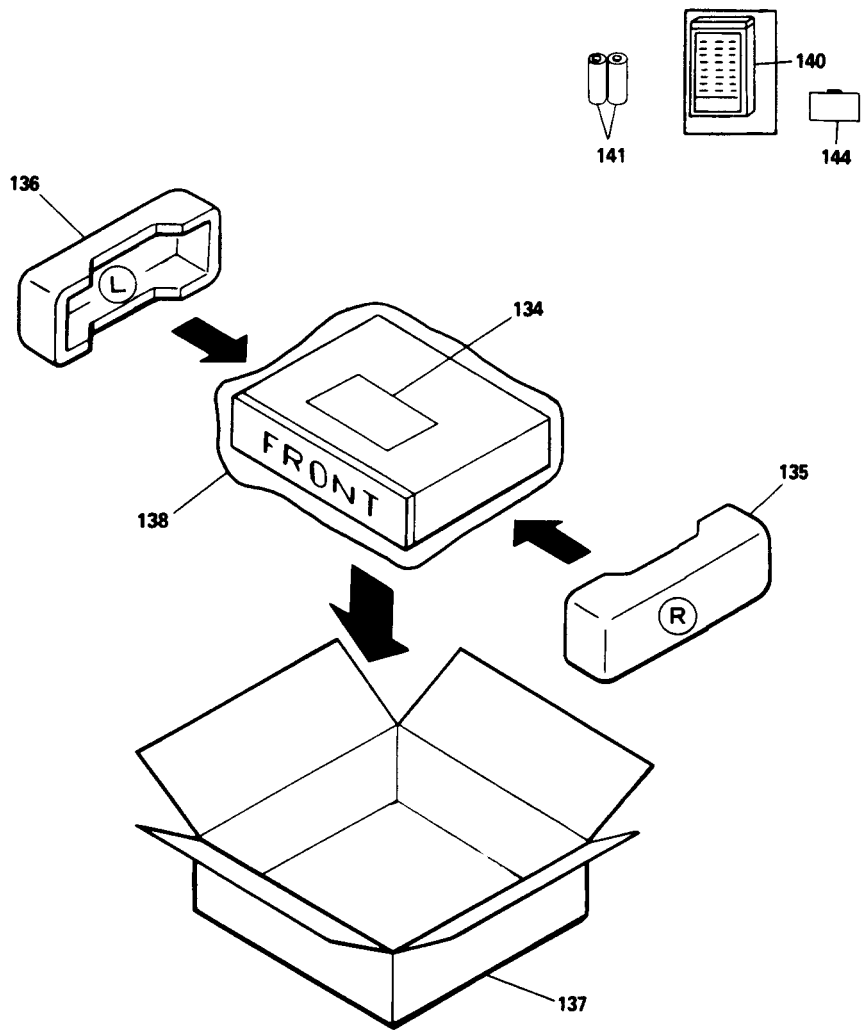
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by " ◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

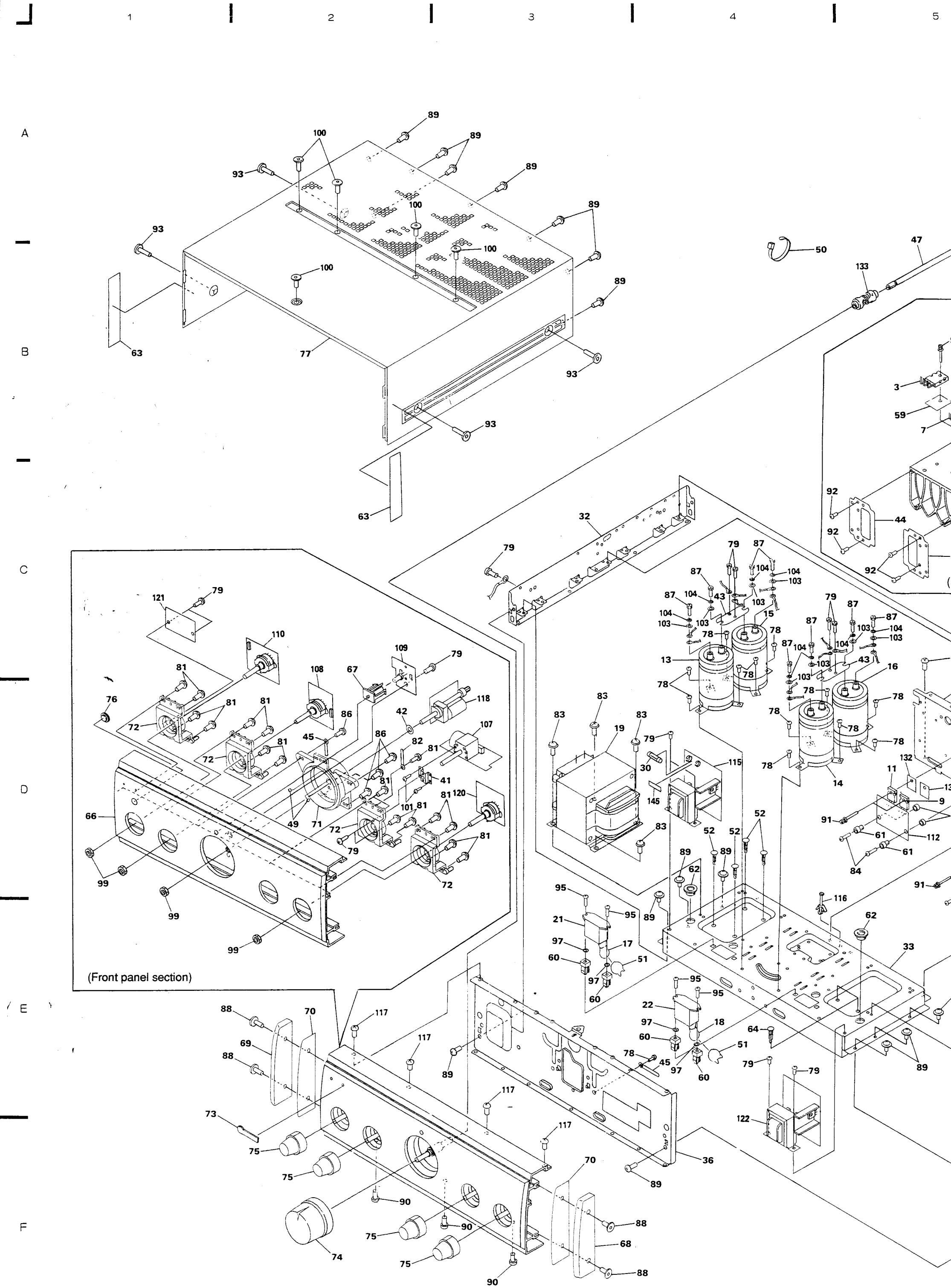
1.1 PARTS LIST

Mark	No.	Description	Parts No.
⚠	1	Q1 TRANSISTOR	2SC3281
⚠	2	Q2 TRANSISTOR	2SC3281
⚠	3	Q3 TRANSISTOR	2SA1302
⚠	4	Q4 TRANSISTOR	2SA1302
⚠	5	Q5 TRANSISTOR	2SC4137
⚠	6	Q6 TRANSISTOR	2SC4137
⚠	7	Q7 TRANSISTOR	2SC4137
⚠	8	Q8 TRANSISTOR	2SC4137
⚠	9	D1 DIODE	C16P20F
⚠	10	D2 DIODE	C16P20F
⚠	11	D3 DIODE	C16P20FR
⚠	12	D4 DIODE	C16P20FR
	13	C1 ELECTROLYTIC CAPACITOR	ACH7024
	14	C2 ELECTROLYTIC CAPACITOR	ACH7024
	15	C3 ELECTROLYTIC CAPACITOR	ACH7025
	16	C4 ELECTROLYTIC CAPACITOR	ACH7026
⚠	17	C5 CAPACITOR (0.01/AC400V)	ACG1003
⚠	18	C6 CAPACITOR (0.01/AC400V)	ACG1003
⚠	19	T1 POWER TRANSFORMER	ATS7071
⚠	20	T2 POWER TRANSFORMER	ATS7071
⚠	21	RY1 POWER RELAY (12V)	ASR1041
⚠	22	RY2 POWER RELAY (12V)	ASR1041
	23	GROUND TERMINAL	AKE−046
	24	1P SPEAKER TERMINAL	AKE7009
	25	1P SPEAKER TERMINAL	AKE7010
	26	SHORT PIN PLUG	AKM−050
⚠	27	FU1 FUSE (T1.6A,250V)	AEK−510
⚠	28	FU2 FUSE (T1.6A,250V)	AEK−510
⚠	29	FU3 FUSE (T250mA,250V)	AEK−503
⚠	30	FU4 FUSE (T500mA,250V)	AEK−505
⚠	31	AC POWER CORD	ADG1093
NSP	32	SIDE FRAME	ANA1218
	33	TRANS FRAME	ANA7022
NSP	34	ANGUL	ANA7023
	35	REAR PANEL (MET)	ANC7238
	36	PANEL STAY (MET)	AND7002
NSP	37	BOTTOM PLATE (MET)	ANF7003
NSP	38	HEAT SINK	ANH7017
	39	FOOT	AMR1159
NSP	40	AC CORD COVER	ANG7034
NSP	41	VOLUME HOLDER	ANG1661
	42	WASHER (COPPER)	ABE1001
	43	EARTH PLATE	ANG1968
NSP	44	HEATSINK HOLDER (MET)	ANG7033
	45	BINDER	AEC−826
NSP	46	AC COAD SPACER	ANG1979
	47	LONG SYAFT	ANL7001
NSP	48	AC CORD HOLDER	AEB1200
NSP	49	RUBBER STOPPER	AEB1325
	50	NYLON BINDER	AEC−093
NSP	51	COVER	AEC−294
NSP	52	PCB HOLDER	AEC1097
NSP	53	PCB SPACER	AEC1180
NSP	54	BUSH (PLS)	AEC1293
NSP	55	WIRE CLIP	AEC1388
NSP	56	AC CORD CATCHER	AEC1397
	57	PCB CONNECTOR (PVC)	AEC1500
	58	EDGE SADDLE	AEC1571
	59	DENKA SHEET	AEC1598
NSP	60	SPACER	AEC1601
NSP	61	BUSH (PLS)	AEC1602
NSP	62	BUSH (PLS)	AEC1603
NSP	63	SPACER	AEC1430
	64	HOLDER	AEC1534
NSP	65	FRAME	ANK7015
	66	FRONT PANEL	ANB7016
	67	INDICATOR LENS	AAK2303
	68	SIDE PANEL	AMR2606
	69	SIDE PANEL	AMR2607
	70	SIDE PANEL	AAP7015
	71	ESCUTCHTEON A	AMR7048
	72	ESCUTCHTEON B	AMR2701
	73	NAME PLATE	VAM1051
	74	ROTARY KNOB L	AAB7056
	75	ROTARY KNOB M	AAB7057
	76	REMOCON WINDOW	AAK2457
NSP	77	BONNET CASE	ANE7063
	78	SCREW (STEEL)	ABA1011
	79	SCREW	ABA−298
	80	SCREW (STEEL)	ABA1004
	81	SCREW (STEEL)	ABA1007
	82	BINDER	AEP−215
	83	SCREW (STEEL)	ABA1053
	84	SCREW	ABA1024
	85	SCREW (STEEL)	ABA1047
	86	SCREW (STEEL)	ABA1050
	87	SCREW	ABA1066
	88	SCREW	ABA1156
	89	SCREW (STEEL)	ABA1192
	90	SCREW (STEEL)	ABA1193

Mark	No.	Description	Parts No.
	91	SCREW (STEEL)	ABA1194
	92	SCREW (STEEL)	ABA1208
	93	SCREW 4×6 (FE)	ABA7011
	94	SAPORT POST	ABA1214
	95	SCREW	BBZ40P120FZK
	96	SCREW	IPZ30P120FCU
NSP	97	SPACER	AEE1013
	98	NUT	NK70FCU
	99	NUT	NK90FCU
	100	SH SCREW	PBA1049
	101	SCREW	VCZ30P060FMC
	102	SCREW	VMZ30P060FCU
	103	WASHER	WC060FUC
	104	WASHER	WH50FMC
	105	INPUT L ASSY	AWZ5958
	106	INPUT R ASSY	AWZ5959
	107	MOTOR FUNCTION ASSY	AWZ5897
	108	GAIN SEL ASSY	AWZ5960
	109	LED ASSY	AWZ5740
	110	POWER SW ASSY	AWZ5961
	111	MOTHER ASSY	AWZ5965
	112	DIODE L ASSY	AWZ5963
	113	DIODE R ASSY	AWZ5964
	114	AC ASSY	AWZ5966
	115	SUB TRANS 1 ASSY	AWZ5957
	116	PCB SPACER	AEC7020
	117	SCREW (STEEL)	ABA1006
	118	MOTOR VOL ASSY	AWZ5896
	119	M-CON ASSY	AWZ5898
	120	REC SEL ASSY	AWZ5899
	121	EYE ASSY	AWZ5730
	122	SUB TRANS 2 ASSY	AWZ5731
⚠	123	R1 CARBON FILM RESISTOR	RD1/4PMF4R7J
⚠	124	R2 CARBON FILM RESISTOR	RD1/4PMF4R7J
	125	C7 POLYESTER CAPACITOR	CQMXA472J100
	126	C8 POLYESTER CAPACITOR	CQMXA472J100
	127	C9 POLYESTER CAPACITOR	CQMXA472J100
	128	C10 POLYESTER CAPACITOR	CQMXA472J100
	129	J1 3P WIRE 250	ADX2150
	130	J2 3P WIRE 250	ADX2150
	131	Y27 LEAD WIRE	ADX2166
	132	SHEET	AEE1014
	133	HOLDER	AMR1178
	134	INSTRUCTION MANUAL (English/German/French/Italian/ Swedish/Dutch/Spanish/Portuguese)	ARE7053
	135	SIDE PAD R	AHA2042
	136	SIDE PAD L	AHA2043
	137	PACKING CASE	AHD7181
NSP	138	PACKING SHEET	AHG1163
NSP	139	WARRANTY CARD	ARW−088
	140	REMO-CON (CU−A017)	AXD7060
NSP	141	BATTERY (R03, AAA)	AEX−021
NSP	142	VINYL POUCH	AHG−027
NSP	143	LITERATURE BAG	AHG−117
	144	BATTERY COVOR	AZN7234
NSP	145	FUSE LAVEL	AAX1585
NSP	146	FUSE LAVEL	AAX1573
NSP	147	FUSE LAVEL	AAX1582

1.2 PACKING





NOTE : Screws adjacent to ▼ mark on are used for disassembly.

(Rear panel section)

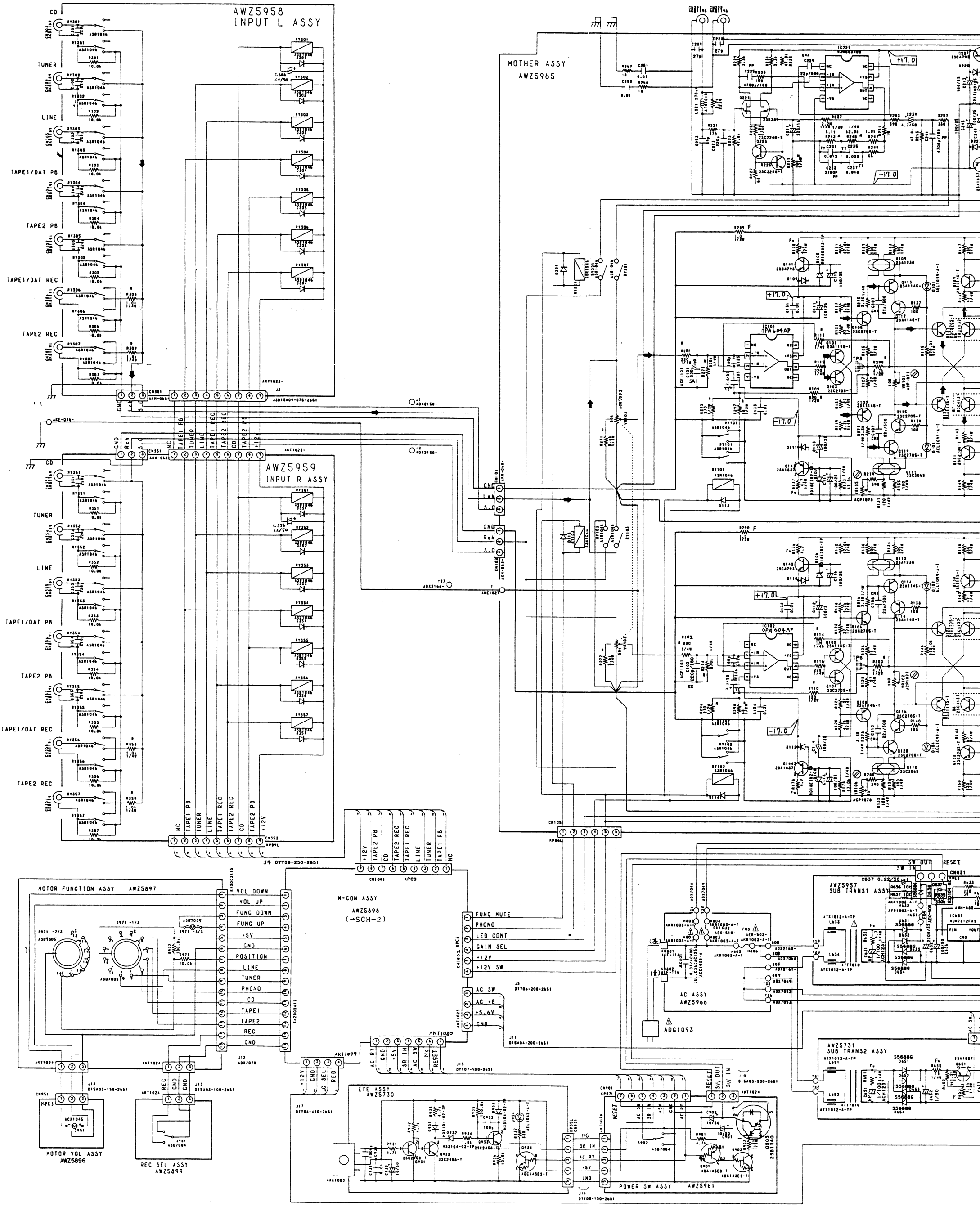
(Heat sink section)

(Heat sink section)

▼ mark on product
sembly.

2. SCHEMATIC AND PCB CONNECTION DIAGRAMS

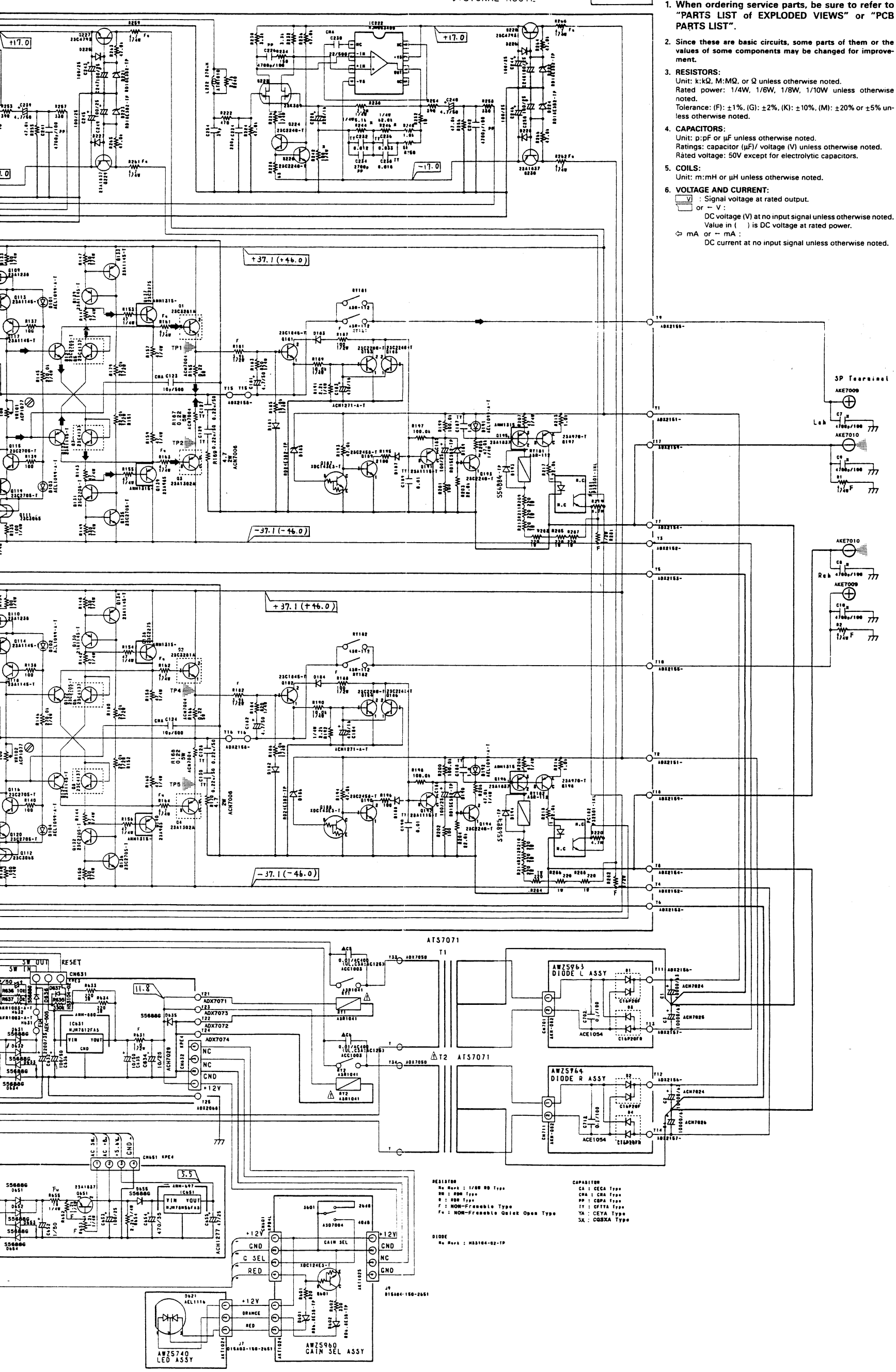
2.1 OVERALL WIRING DIAGRAM, MOTHER, DIODE L, DIODE R, AC, SUB TRANS 1, SUB TRANS 2, EYE, INPUT L, INPUT R, GAIN SEL, LED, POWER SW, MO



SCH-1 OVERALL, MOTHER ASSY, DIODE L ASSY, DIODE R ASSY, AC ASSY, SUB TRANS 1 ASSY, SUB TRANS 2 ASSY, EYE ASSY, INPUT L ASSY, INPUT R ASSY, GAIN SEL ASSY, LED ASSY, POWER SW ASSY, MOTOR VOL ASSY, MOTOR FUCTION ASSY, REC SEL ASSY

OWER SW, MOTOR VOL, MOTOR FUCTION AND REC SEL. ASSEMBLIES

SCH-1



NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

1. **When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".**
2. **Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.**
3. **RESISTORS:**
   Unit: k:kΩ, M:MΩ, or Ω unless otherwise noted.
   Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
   Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
4. **CAPACITORS:**
   Unit: p:pF or μF unless otherwise noted.
   Ratings: capacitor (μF)/ voltage (V) unless otherwise noted.
   Rated voltage: 50V except for electrolytic capacitors.
5. **COILS:**
   Unit: m:mH or μH unless otherwise noted.
6. **VOLTAGE AND CURRENT:**
   V : Signal voltage at rated output.
   or ⊷ V :
   DC voltage (V) at no input signal unless otherwise noted.
   Value in ( ) is DC voltage at rated power.
   ⇦ mA or ⊷ mA :
   DC current at no input signal unless otherwise noted.
7. **OTHERS:**
   - ⊘ or ⓐ : Adjusting point.
   - : Measurement point.
   - The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
8. **SCH—□ ON THE SCHEMATIC DIAGRAM:**
   - SCH—□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
9. **SWITCHES** (Underline indicates switch position):

GAIN SEL ASSY
S601 : GAIN SELECTOR

POWER SW ASSY
S902 : POWER STANDBY/ON OFF

MOTOR FUNCTION ASSY
S971 : INPUT SELECTOR

REC SEL ASSY
S981 : REC OUT

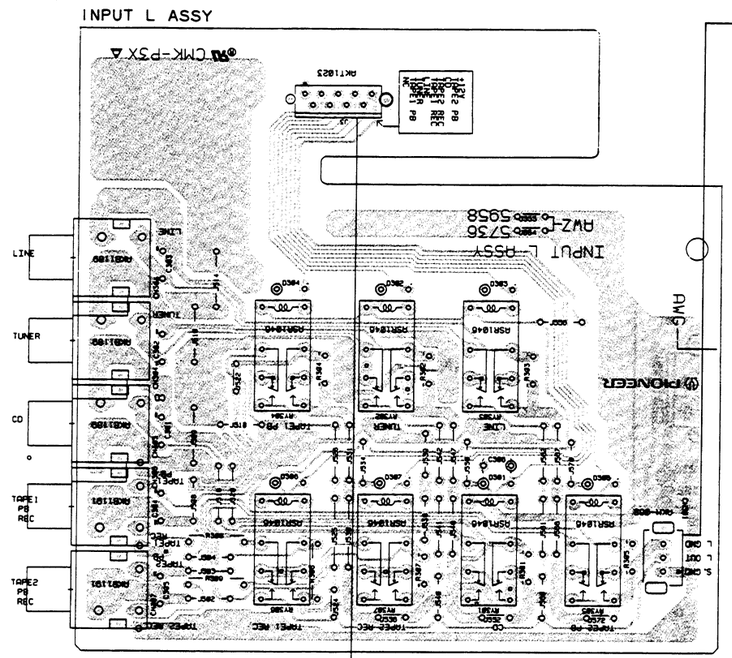
RESISTOR
No Mark : 1/6W MD Type
RN : RSN Type
R : RSD Type
F : NON-Fremable Type
Fe : NON-Fremable Quick Open Type

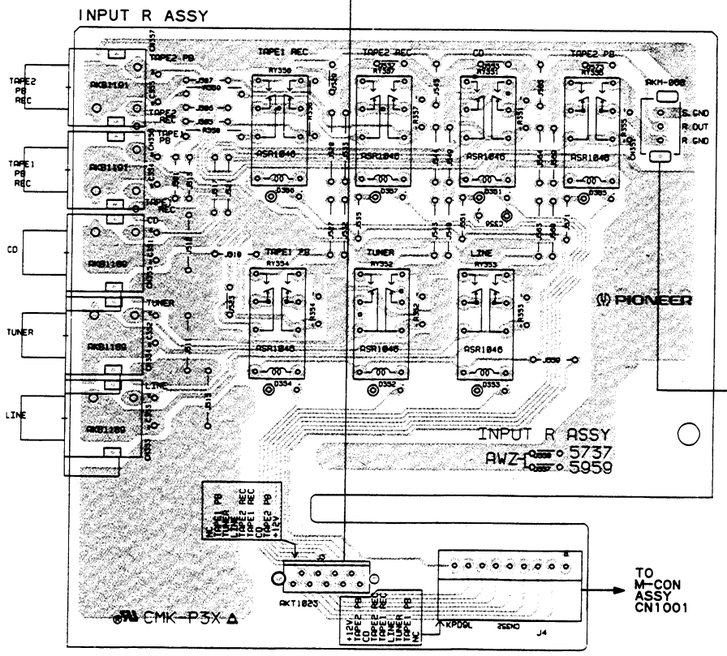
CAPACITOR
CA : CECA Type
CHA : CHA Type
PP : CQPA Type
TY : CFTTA Type
YA : CEYA Type
5X : CQSXA Type

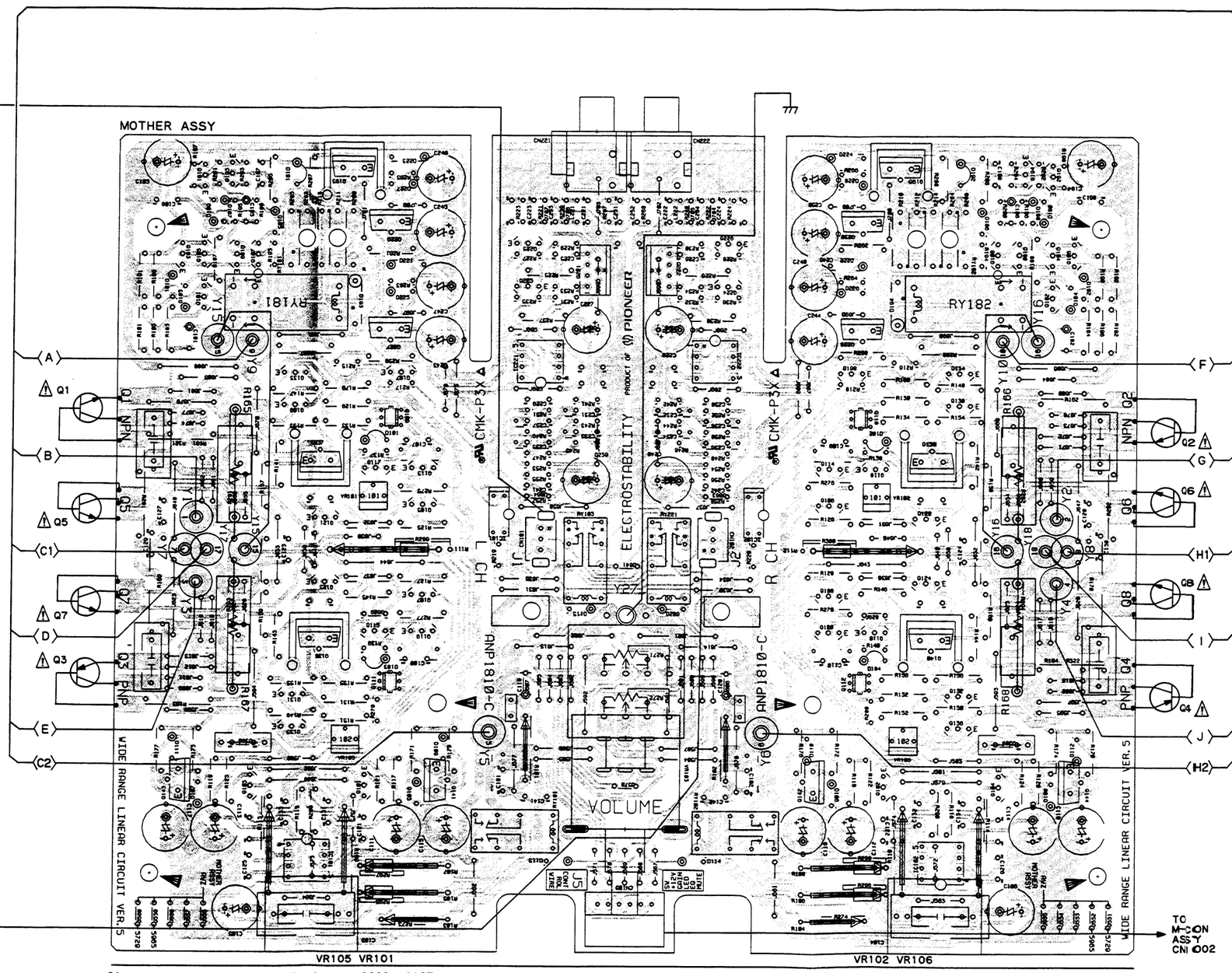
DIODE
No Mark : HS3104-02-TP

OVERALL, MOTHER ASSY, DIODE L ASSY, DIODE R ASSY, AC ASSY, SUB TRANS 1 ASSY, SUB TRANS 2 ASSY, EYE ASSY, INPUT L ASSY, INPUT R ASSY, GAIN SEL ASSY, LED ASSY, POWER SW ASSY, MOTOR VOL ASSY, MOTOR FUCTION ASSY, REC SEL ASSY

SCH-1

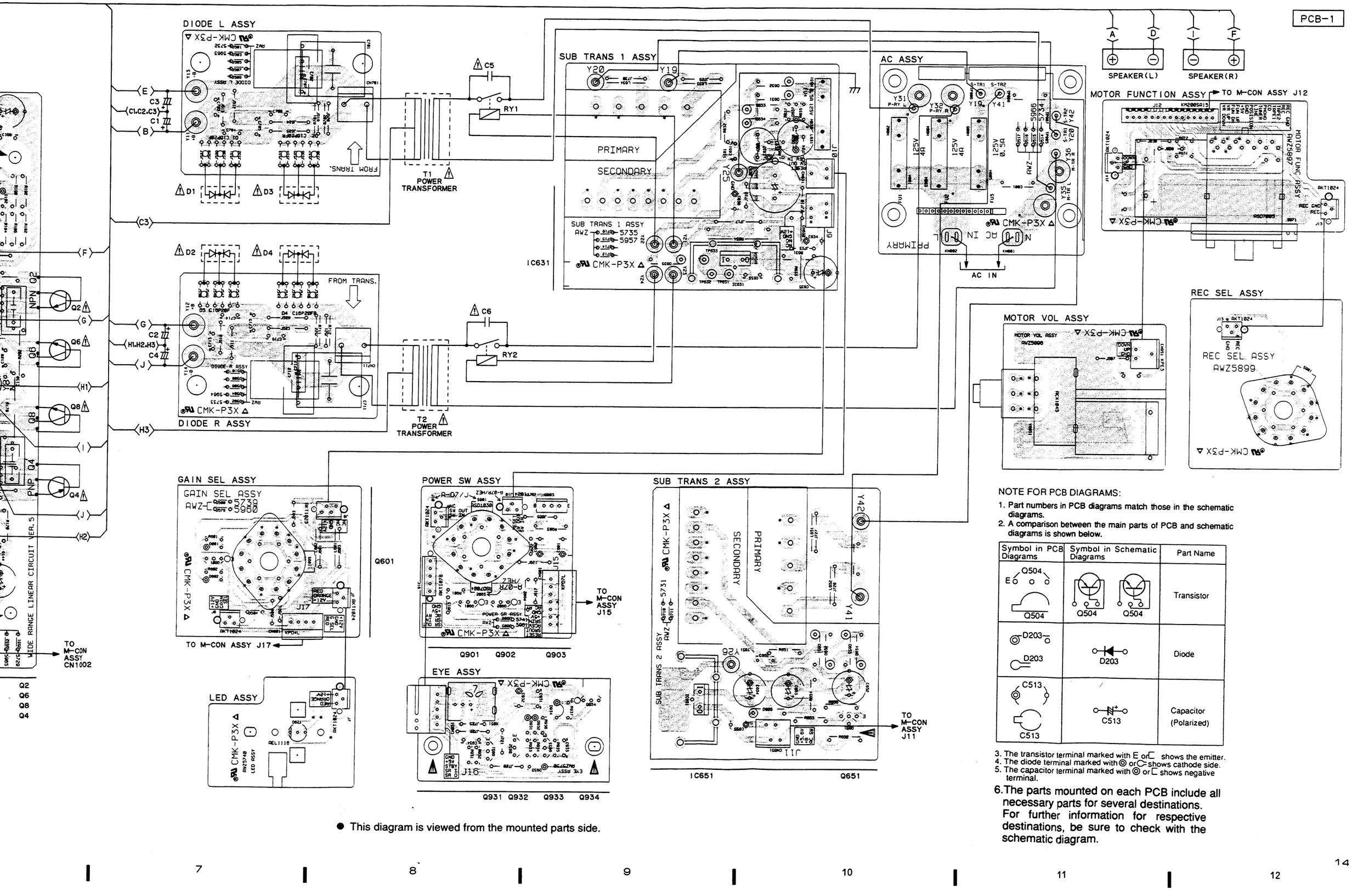






Q1	Q191	Q193	Q133	Q195	Q229	Q197	IC181	Q225	Q221	Q222	Q226	IC182	Q114	Q230	Q196	Q134	Q194	Q192	Q2
Q5	Q183	Q189	Q129	Q137	Q227	Q113		Q223			Q224		Q106	Q228	Q138	Q130	Q188	Q184	Q6
Q7	Q185	Q187	Q131	Q121	Q109	Q105		IC221			IC222		Q108	Q198	Q122	Q132	Q190	Q186	Q8
Q3	Q181	Q103	Q135	Q123	Q117	Q107							Q120	Q110	Q124	Q136	Q104	Q182	Q4
	Q143			Q139	Q115	Q119							Q112	Q118	Q140			Q144	
				IC101	Q111	Q141							Q142	Q116	IC102				
					Q101									Q102					

PCB-1



● This diagram is viewed from the mounted parts side.

NOTE FOR PCB DIAGRAMS:

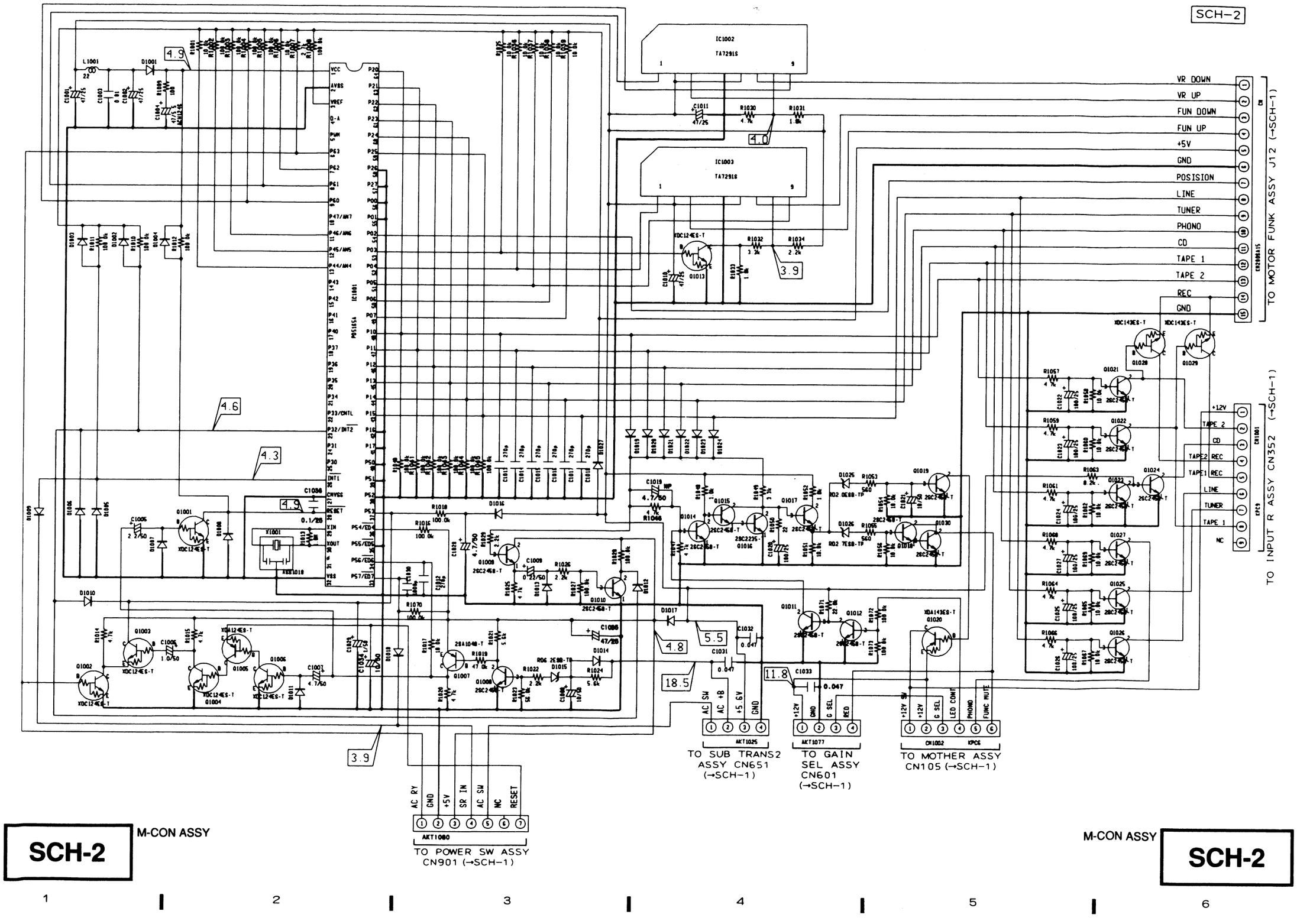
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
Q504 (E, C, B)	Q504	Transistor
D203	D203	Diode
C513	C513	Capacitor (Polarized)

3. The transistor terminal marked with E or ⊏ shows the emitter.
4. The diode terminal marked with ◎ or ⊂ shows cathode side.
5. The capacitor terminal marked with ◎ or ⊏ shows negative terminal.
6. The parts mounted on each PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

2.2 M-CON ASSEMBLY

M-CON ASSY AWZ5898



SCH-2 M-CON ASSY

M-CON ASSY **SCH-2**

● This diagram is viewed from the mounted parts side.

M-CON ASSY

TO INPUT R ASSY CN352

TO MOTHER ASSY CN105

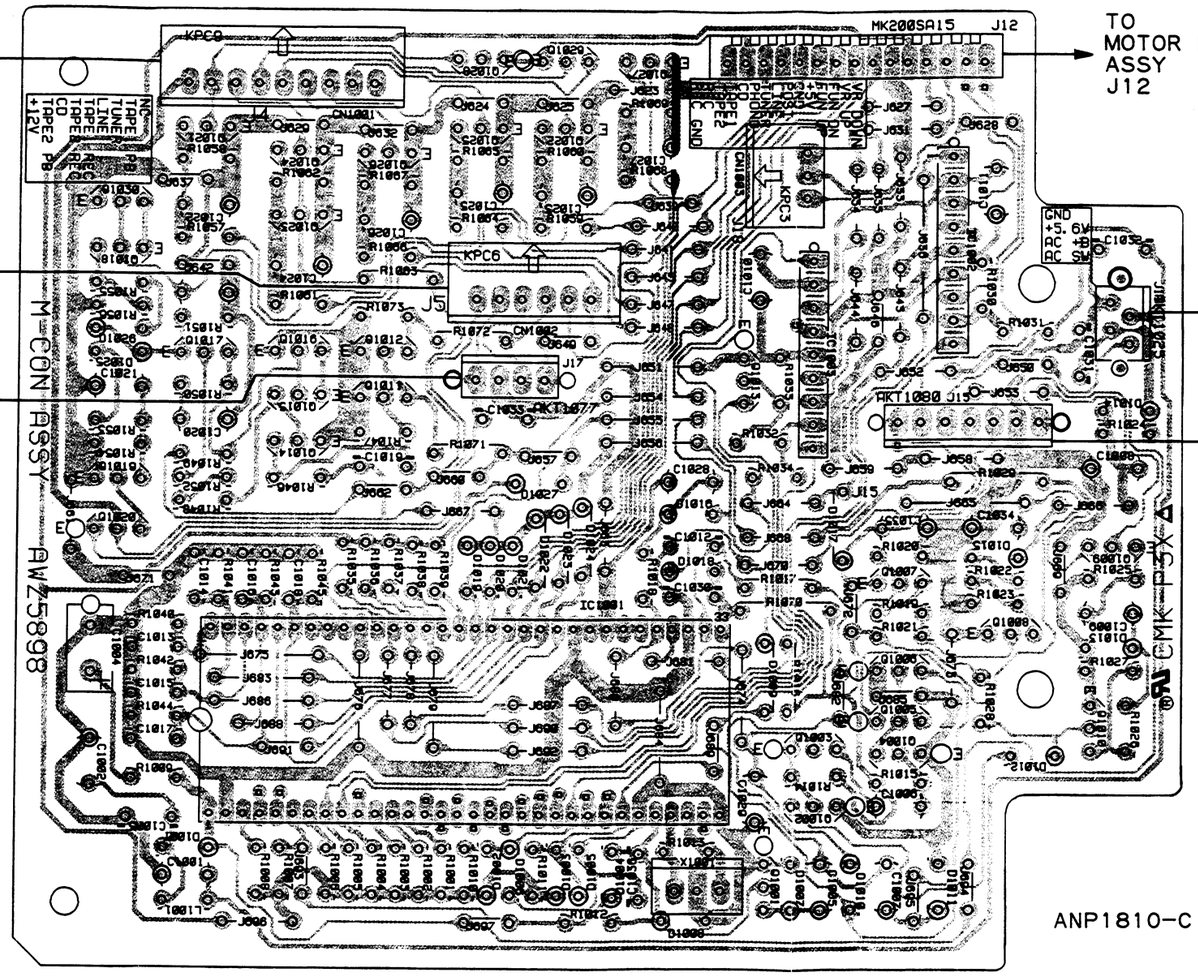
TO GAIN SEL ASSY CN601

TO MOTOR FUNC ASSY J12

PCB-2

TO SUB TRANS 2 ASSY CN651

TO POW SW ASSY CN901



ANP1810-C

Q1030	Q1021	Q1024	Q1026	Q1028	Q1029	Q1027	Q1013	Q1003	Q1007	Q1008	Q1009
Q1018	Q1017	Q1023	Q1012	Q1025	Q1022			Q1002	Q1006	IC1002	Q1010
Q1019		Q1016	Q1011		IC1001			Q1001	Q1005		
Q1020		Q1015						IC1003	Q1004		
		Q1014									

Mark	No.	Description	Parts No.	Mark
REC SEL ASSY				
SWITCHES AND RELAYS				
	S981		ASD7004	
INPUT L ASSY				
SEMICONDUCTORS				
	D301－D307		HSS104－02	
SWITCHES AND RELAYS				
	RY301－RY307		ASR1046	
CAPACITORS				
	C301－C305		CCCSL221J50	
	C306		CEAS220M50	
RESISTORS				
	R308,R309		RDR1/4PM102J	
		Other Resistors	RD1/8PM□□□J	
OTHERS				
	CN303－CN305	1P PINJACK	AKB1189	
	CN306,CN307	2P PINJACK	AKB1191	
		CABLE HOLDER	AKT1023	
INPUT R ASSY				
SEMICONDUCTORS				
	D351－D357		HSS104－02	
SWITCHES AND RELAYS				
	RY351－RY357		ASR1046	
CAPACITORS				
	C351－C355		CCCSL221J50	
	C356		CEAS220M50	
RESISTORS				
	R358,R359		RDR1/4PM102J	
		Other Resistors	RD1/8PM□□□J	
OTHERS				
	CN353－CN355	1P PINJACK	AKB1189	
	CN356,CN357	2P PINJACK	AKB1191	
		CABLE HOLDER	AKT1023	
GAIN SEL ASSY				
SEMICONDUCTORS				
	Q601		XDC124ES	
	D601,D602		RD6.8ESB	
SWITCHES AND RELAYS				
	S601		ASD7004	
RESISTORS				
		All Resistors	RD1/8PM□□□J	
POWER SW ASSY				
SEMICONDUCTORS				
	Q903		2SB1340	
	Q901		XDA143ES	
	Q902		XDC143ES	
SWITCHES AND RELAYS				
	S902		ASD7004	

Mark	No.	Description	Parts No.	Mark
CAPACITORS				
	C901,C902		CEAS100M50	
RESISTORS				
	R902		RD1/4PM122J	
		Other Resistors	RD1/8PM□□□J	
EYE ASSY				
SEMICONDUCTORS				
	Q931－Q933		2SC2458	
	Q934		XDC143ES	
	D934		AEL1065	
	D931－D933		HSS104－02	
CAPACITORS				
	C932		CEAS100M50	
	C934		CKCYB102K50	
	C931		CKCYF103Z50	
	C933		CKPUYB101K50	
RESISTORS				
		All Resistors	RD1/8PM□□□J	
OTHERS				
		REMOTE RECEIVER UNIT	AXX1023	
SUB TRANS 2 ASSY				
SEMICONDUCTORS				
	IC651		NJM78M56FAS	
	Q651		2SA1837	
	D651－D655		S5688G	
COILS AND FILTERS				
⚠	L651,L652		ATX1012	
TRANSFORMERS				
⚠	T651		ATT7010	
CAPACITORS				
	C651		ACH1237	
	C655	(47/25V)	ACH1277	
	C652		CEAS010M50	
	C653		CEAS101M25	
	C654		CEAS471M35	
RESISTORS				
⚠	R655		RFA1/4PS180J	
⚠	R651		RFA1/4PS4R7J	
		Other Resistors	RD1/4PM□□□J	
OTHERS				
		SCREW	ABA－298	
		HEAT SINK M	ANH－697	
	CN651	CONNECTOR (4P)	KPE4	
SUB TRANS 1 ASSY				
SEMICONDUCTORS				
	IC631		NJM7812FAS	
	D637		HSS104－02	
	D631－D636		S5688G	
COILS AND FILTERS				
⚠	L633,L634		ATX1012	
TRANSFORMERS				
⚠	T631		ATT7010	

3. PCB PARTS LIST

NOTES:

- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).

560Ω	→	*56×10¹*	→ *561* ·····	*RD1/8PM[5][6][1]J*
47kΩ	→	*47×10³*	→ *473* ·····	*RD1/4PS[4][7][3]J*
0.5Ω	→	*0R5* ·····		*RN2H[0][R][5]K*
1Ω	→	*010* ·····		*RS1P[0][1][0]K*

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62kΩ → 562×10¹ → 5621 ····· RN1/4PC[5][6][2][1]F

Mark	No.	Description	Parts No.	Mark

LIST OF ASSEMBLIES

NSP	CONTROL ASSY		
	├	LED ASSY	AWZ5740
	├	MOTOR VOL ASSY	AWZ5896
	├	MOTOR FUNCTION ASSY	AWZ5897
	├	M−CON ASSY	AWZ5898
	├	REC SEL ASSY	AWZ5899
	├	INPUT L ASSY	AWZ5958
	├	INPUT R ASSY	AWZ5959
	├	GAIN SEL ASSY	AWZ5960
	└	POWER SW ASSY	AWZ5961
NSP	AF ASSY		
	├	EYE ASSY	AWZ5730
	├	SUB TRANS 2 ASSY	AWZ5731
	├	SUB TRANS 1 ASSY	AWZ5957
	├	DIODE L ASSY	AWZ5963
	├	DIODE R ASSY	AWZ5964
	├	MOTHER ASSY	AWZ5965
	└	AC ASSY	AWZ5966

LED ASSY

SEMICONDUCTORS

D621			AEL1116

MOTOR VOL ASSY

RESISTORS

VR951			ACX1045

OTHERS

CN951	CONNECTOR (3P)		KPE3

MOTOR FUNCTION ASSY

SWITCHES AND RELAYS

S971			ASD7005

RESISTORS

	All Resistors		RD1/8PM□□□J

OTHERS

J13	JUMPER WIRE		D15A03−100−2651

M−CON ASSY

SEMICONDUCTORS

IC1001			PD5165A
IC1002,IC1003			TA7291S
Q1007			2SA1048
Q1016			2SC2235
Q1008−Q1012,Q1014,Q1015			2SC2458
Q1017−Q1019,Q1021−Q1027,Q1030			2SC2458
Q1005			XDA124ES
Q1020			XDA143ES
Q1001−Q1004,Q1006,Q1013			XDC124ES
Q1028,Q1029			XDC143ES
D1001−D1014,D1016−D1024,D1027			HSS104−02
D1025			RD2.0ESB
D1026			RD2.7ESB
D1015			RD6.2ESB

COILS AND FILTERS

L1001			LAU220J

CAPACITORS

C1004			ACH1246
C1012			CCCSL271J50
C1019			CEANP4R7M50
C1006,C1029			CEAS010M50
C1008,C1021,C1034			CEAS100M50
C1020,C1022−C1027			CEAS101M25
C1005			CEAS2R2M50
C1001,C1002,C1010,C1011,C1035			CEAS470M25
C1007,C1028			CEAS4R7M50
C1009			CEASR22M50
C1030			CKCYB102K50
C1003			CKCYF103Z50
C1031−C1033			CKCYF473Z50
C1036			CKCYX104M25
C1013−C1018			CKPUYB271K50

RESISTORS

	All Resistors		RD1/8PM□□□J

OTHERS

	CABLE HOLDER (4P)		AKT1077
	CABLE HOLDER (7P)		AKT1080
X1001	CERAMIC RESONATOR		ASS1018
CN1002	JUMPER CONNECTOR		KPC6
CN1001	CONNECTOR (9P)		KPC9

Mark	No.	Description	Parts No.	Mark
CAPACITORS				
	C631		ACH1237	
	C634	(10/25V)	ACH7029	
	C635		CEAS100M50	
	C636		CEAS101M50	
	C632		CEAS222M35	
	C637		CEASR22M50	
RESISTORS				
	R631		RD1/2PMF010J	
⚠	R632		RFA1/4PS4R7J	
⚠	R633,R634		RS3LMF221J	
		Other Resistors	RD1/8PM□□□J	
OTHERS				
		SCREW	ABA−298	
	H631,H632	FUSE CLIP	AKR1003	
		HEAT SINK	ANH−880	
	CN631	CONNECTOR (3P)	KPE3	
	CN632	CONNECTOR (4P)	KPE4	

DIODE L ASSY

CAPACITORS

	C702	(0.1)	ACE1054	

DIODE R ASSY

CAPACITORS

	C712	(0.1)	ACE1054	

MOTHER ASSY

SEMICONDUCTORS

	IC221,IC222		NJM5534DD	
	IC101,IC102		OPA604AP−A	
	IC181,IC182		PS2501−1KL	
	Q191,Q192		2SA1115	
	Q101,Q102,Q107,Q108		2SA1145	
	Q113,Q114,Q117,Q118		2SA1145	
	Q123,Q124,Q129,Q130		2SA1145	
	Q133,Q134		2SA1145	
	Q109,Q110		2SA1238	
	Q143,Q144,Q195,Q196		2SA1837	
	Q229,Q230		2SA1837	
	Q197,Q198		2SA970	
	Q139,Q140		2SA985	
	Q181−Q186,Q193,Q194		2SC2240	
	Q223−Q226		2SC2240	
	Q137,Q138		2SC2275	
	Q189,Q190		2SC2458	
	Q103−Q106,Q115,Q116		2SC2705	
	Q119−Q122,Q131,Q132		2SC2705	
	Q135,Q136		2SC2705	
	Q111,Q112		2SC3065	
	Q141,Q142,Q227,Q228		2SC4793	
	Q221,Q222		2SK389	
	Q187,Q188		XDC143ES	
	D101−D104,D191,D192		AEL1099	
	D109−D115,D181−D184		HSS104−02	
	D187,D188,D225−D229		HSS104−02	
	D189,D190		RD15ESB2	
	D105−D108,D221−D224		RD18ESB2	
	D185,D186		RD24ESB2	
	D193,D194		S5688G	

COILS AND FILTERS

	L221,L222 (270)		ATH1010	

SWITCHES AND RELAYS

	RY181,RY182		ASR−112	
	RY101−RY103,RY221		ASR1046	

CAPACITORS

	C125,C126		CCCSL181J50	
	C223,C224		CCCSL221J50	
	C221,C222		CCCSL270J50	
	C253,C254		CCCSL390J50	
	C111−C118,C185,C186		CEAS101M25	
	C243−C250		CEAS101M25	
	C227,C228		CEAS221M16	
	C183,C184		CEAS471M16	
	C181,C182,C239,C240		CEAS4R7M50	
	C189,C190		CFTYA103J50	
	C187,C188		CFTYA105J50	
	C231,C232		CFTYA123J50	
	C237,C238		CFTYA183J50	
	C127−C130		CFTYA224J50	
	C105,C106		CFTYA225J50	
	C235,C236		CFTYA333J50	
	C131−C134,C251,C252		CKCYF103Z50	
	C123,C124		CMA100D500	
	C107−C110,C229,C230		CMA220J500	
	C233,C234		CQPA272J100	
	C225,C226,C241,C242		CQPA472J100	
	C101,C102		CQSXA221J160	

RESISTORS

	R165−R168 (0.22/5W)		ACN7004	
	R169,R170 (4.7/2W)		ACN7006	
	R151,R152,R179,R180		RD1/2PM223J	
⚠	R281,R282,R289,R290		RD1/2PMF010J	
⚠	R187,R188		RD1/2PMF101J	
⚠	R181,R182		RD1/2PMF392J	
	R129,R130,R133−R136		RD1/4PM101J	
	R189,R190		RD1/4PM103J	
	R131,R132		RD1/4PM121J	
	R185,R186		RD1/4PM153J	
	R225,R226		RD1/4PM182J	
	R115,R116		RD1/4PM221J	
	R191,R192		RD1/4PM222J	
	R237,R238		RD1/4PM225J	
	R121−R128		RD1/4PM270J	
	R145,R146		RD1/4PM274J	
	R147−R150		RD1/4PM331J	
	R275−R278		RD1/4PM332J	
	R141−R144,R153−R160		RD1/4PM470J	
	R207,R208		RD1/4PM470J	
	R117−R120		RD1/4PM472J	
	R171−R174,R205,R206		RD1/4PM473J	
	R183,R184		RD1/4PM821J	
	R295,R296		RDR1/2PM271J	
	R299,R300		RDR1/2PM472J	

Mark	No.	Description	Parts No.	Mark
	R297,R298		RDR1/2PM680J	
	R109,R110		RDR1/2PM821J	
	R113,R114		RDR1/4PM105J	
	R101,R102		RDR1/4PM221J	
	R273,R274		RDR1/4PM274J	
	R271,R272		RDR1/4PM562J	
⚠	R161－R164,R175－R178		RFA1/4PS4R7J	
⚠	R259－R262		RFA1/4PS4R7J	
	R241,R242		RN1/4PC1000F	
	R243,R244		RN1/4PC5101F	
	R245,R246		RN1/4PC6202F	
⚠	R209－R214,R283－R286		RS1LMF271J	
⚠	R287,R288		RS1PMF221J	
	VR101,VR102	(100/0.5W)	ACP1077	
	VR105,VR106	(1/0.5W)	ACP1078	
	VR103	(50×2)	ACW7002	
		Other Resistors	RD1/8PM□□□J	

OTHERS

		SCREW (STEEL)	ABA1009
	CN221,CN222	PIN JACK (1P)	AKB1196
		STAR TERMINAL A	AKE1028

AC ASSY

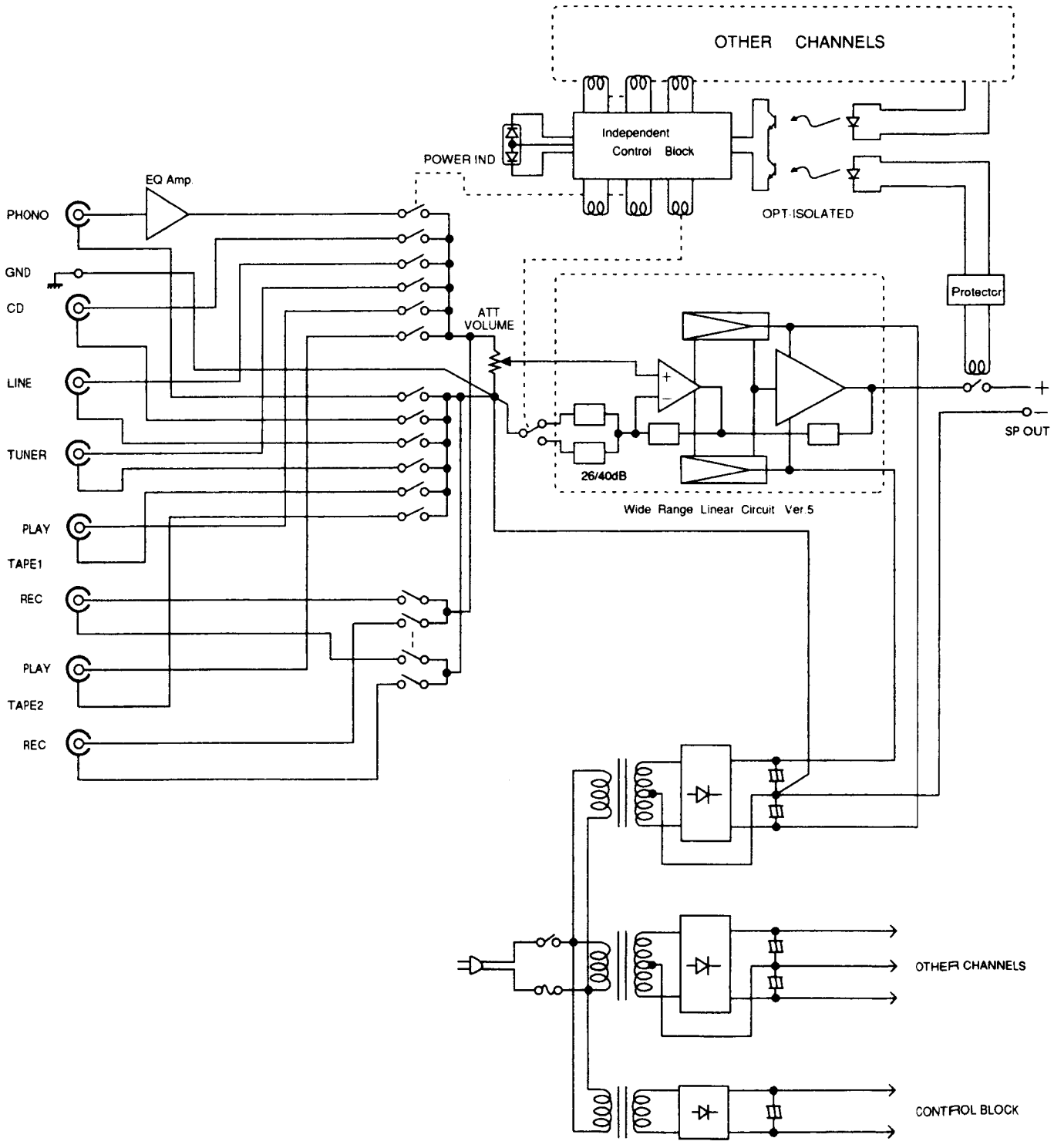
CAPACITORS

⚠	C801	(0.01/400V)	ACG1003

OTHERS

	H801－H806	FUSE CLIP	AKR1003

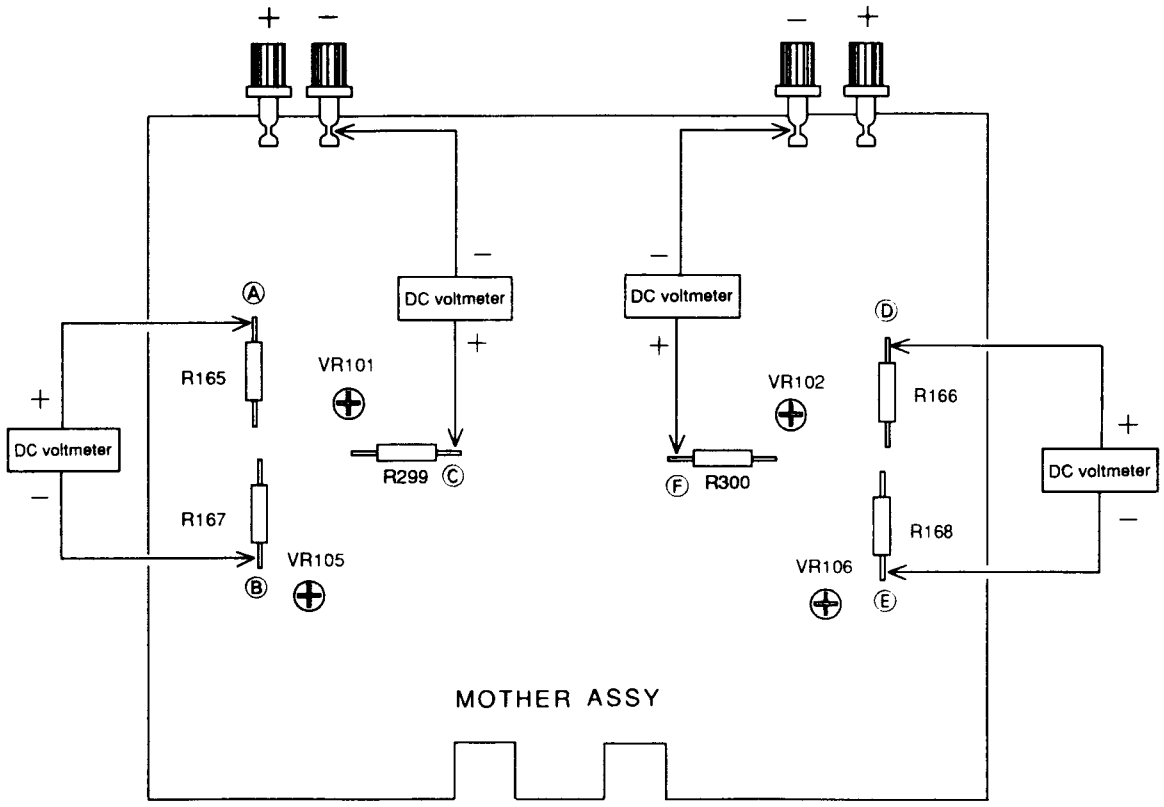
4. BLOCK DIAGRAM



5. ADJUSTMENTS

1. Connect the measurement equipment.
2. Set VR105 (VR106) for DC balance adjustment to the center position.
3. Turn VR101 (VR102) for idle current adjustment counterclockwise as far as it will go.
4. Turn the VOLUME control on the front panel counterclockwise as far as it will go.
5. Turn on the power.
6. Adjust VR101 (VR102) so that Ⓐ (Ⓓ) is +22 mV ± 5 mV with respect to Ⓑ (Ⓔ).
7. Adjust VR105 (VR106) so that Ⓒ (Ⓕ) is 0 mV ± 3 mV with respect to the negative terminal of a Lch (Rch) speaker.

Note: Adjust five minutes or more after the power is turned on.



Connection and Adjustment Point

7. SPECIFICATIONS

Amplifier Section

DIN Continuous power output (both channels driven at 1 kHz)
- T.H.D. 1.0 %, 8 Ω ..... 80 W + 80 W
- T.H.D. 1.0 %, 4 Ω ..... 120 W + 120 W

Signal-to-Noise ratio (DIN, continuous power/50 mW)
- PHONO (MM) ..... 70 dB/65 dB*
- CD, TUNER, TAPE 1, TAPE 2, LINE ..... 95 dB/67 dB*

Total harmonic distortion*
- 20 Hz to 20 kHz, 35 W, 8 Ω ..... 0.01 %*

Input sensitivity/impedance
- PHONO (MM) ..... 2.8 mV/50 kΩ
- CD, TUNER, TAPE 1, TAPE 2, LINE ..... 200 mV/50 kΩ

Damping factor
- (1 kHz/20 Hz to 20 kHz), 8 Ω 350/300

Frequency response
- PHONO (MM) ..... 20 Hz to 20 kHz ±0.3 dB
- AUX ..... 5 Hz to 400 kHz $^{+0}_{-3}$ dB

Output level/impedance
- TAPE REC ..... 200 mV/1 kΩ

• *Above specifications are for when power supply is 230 V.*

Power Supply/Miscellaneous

Power Requirements ..... a.c. 220 — 230 Volts, 50/60 Hz
Power Consumption ..... 600 W
Dimensions ..... 440 (W) x 476 (D) x 163 (H) mm
Weight (without package) ..... 18.4 kg

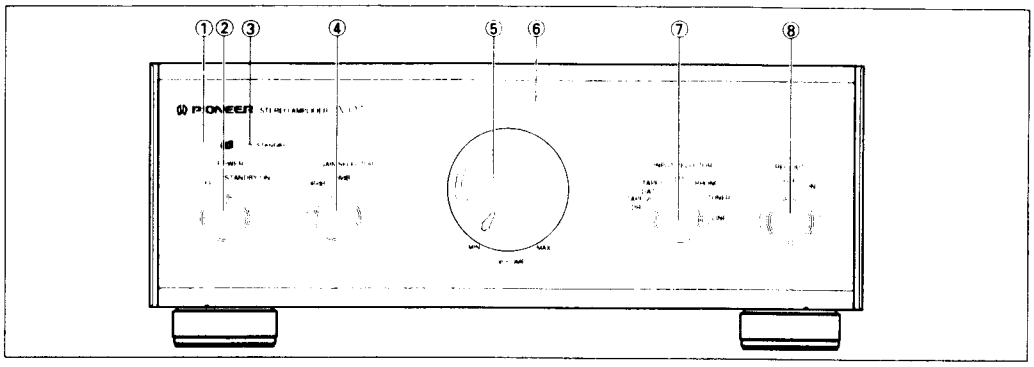
Accessories

Operating instructions 1
Remote control unit 1
Batteries (IEC AAA/R03) 2

NOTE:
Specifications and design are subject to possible modification without notice, due to improvements.

* Measured by Audio Spectrum Analyzer.

6. PANEL FACILITIES



FRONT PANEL

1 **Remote control sensor window**

2 **POWER STANDBY/ON OFF switch**

OFF : When set to the OFF position, the main power flow is cut and the unit is no longer fully operational.

STANDBY/ON : When set to the STANDBY/ON position, power is supplied and the unit becomes operational. The unit can be switched between STANDBY and ON via remote control unit.

3 **STANDBY indicator**

Lights to indicate standby; goes out when POWER switch of the remote control unit is pushed.
When in STANDBY, power to the audio circuitry is cut. The control circuit however remains powered, so that the remote control operation is still possible.

4 **GAIN SELECTOR**

This enables 2-step power amp gain switching between 26 dB and 40 dB. 26 dB is the usual setting for audio reproduction with high S/N ratio. Switch to 40 dB if volume level is insufficient.
NOTE:
If you switch from 26 dB to 40 dB during operation, volume level suddenly becomes very high. When switching from 26 dB to 40 dB, be careful the volume level setting isn't too high.

5 **VOLUME knob**

Adjusts volume level.

6 **Power indicator**

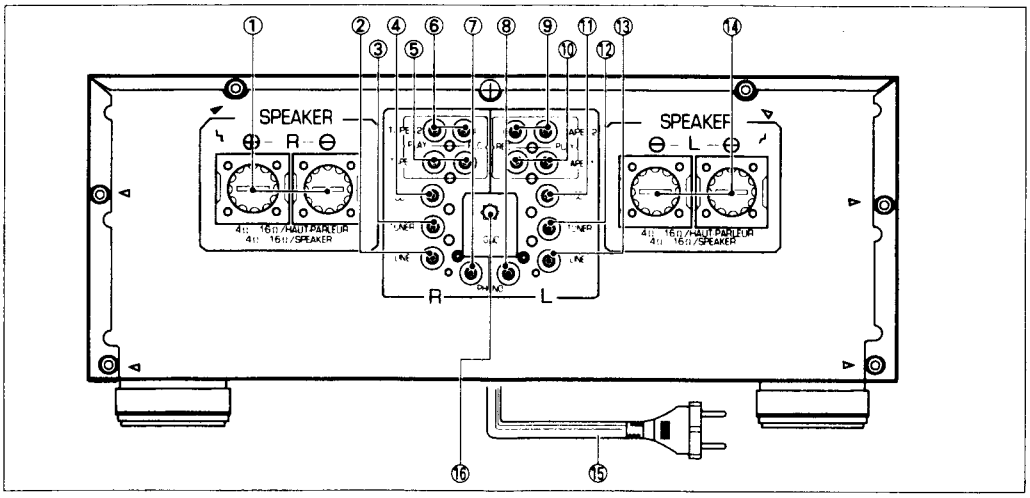
This stays in orange for 6 seconds after switching ON and then turns red. The sound is muted while in orange.

7 **INPUT SELECTOR**

Use this to select between TAPE 2/CDR, TAPE 1/DAT, CD, PHONO, TUNER, and LINE, depending on which component you want to listen to. Because input switching is by relay, there's no sound for about 1 second after switching.

8 **REC OUT switch**

Switch this ON, and the source selected with the input selector is output through the REC OUT jacks. However, if you select TAPE 1/DAT there is no output from the TAPE 1/REC jacks, and if you select TAPE 2/CDR there is no output from the TAPE 2/REC jacks.



REAR PANEL

1 **SPEAKERS terminals (right channel)**

2 **LINE jack (right)**

3 **TUNER jack (right)**

4 **CD jack (right)**

5 **TAPE 1 PLAY/REC jacks (right)**

6 **TAPE 2 PLAY/REC jacks (right)**

7 **PHONO jack (right)**

8 **PHONO jack (left)**

9 **TAPE 2 PLAY/REC jacks (left)**

10 **TAPE 1 PLAY/REC jacks (left)**

11 **CD jack (left)**

12 **TUNER jack (left)**

13 **LINE jack (left)**

14 **SPEAKERS terminals (left channel)**

15 **Power cord**
Connect this cord to an AC wall socket.

16 **GND (Turntable ground terminal)**